

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Uranium Mill Tailings Projects - Surface**

Project **AL020 / UMTRA - Surface Remedial Action Project**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0475**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Definition of Scope: Tailings remediation of each site includes a Remedial Action Plan (RAP) approved by the Nuclear Regulatory Commission (NRC) with the participation of the affected State/Tribe, an Environmental Assessment or Environmental Impact Statement, design/engineering, construction, preclicensing custodial care (PLCC), and licensing by the NRC. The hazards which the UMTRA Surface Project is intended to remediate include: (1) radon gas (Ra222); (2) gamma radiation decay products (Pb 214 and BI 214); (3) asbestos and other hazardous and mixed organic wastes at all mill sites; and (4) Resource Conservation and Recovery Act (RCRA) listed constituents in ground water plus molybdenum, radium, uranium, selenium, and nitrates. A total of approximately 32.7 million (M) cubic meters of contaminated material will be placed in disposal cells. Approximately 24.4M cubic meters of this contaminated material requires handling at the sites or between a processing site and a disposal cell. In addition, over five thousand vicinity properties within the communities or surrounding the processing sites with associated contamination will be remediated.

Technical Approach: The Project has been phased and baselined against key decision milestones. Each key decision provides approval to advance to the next phase in the Major System Acquisition (MSA) process. The phases are conceptual design, advanced development, final design, construction, and operations. Each site follows this MSA phase process. The process begins with planning and design development and proceeds through NEPA analysis, RAPs, engineering design, remedial action construction, and certification and licensing. Enginnering assessments have been performed for all 24 sites to define site conditions and problems, identify alternative remedial actions, and determine the scope and estimated costs of remedial action alternatives. The EPA standards require that remedial actions be based on predicted cover effectiveness for 200 to 1000 years. Field and laboratory testing of earthen radon barrier cover systems has shown them to be effective and capable of meeting EPA standards. The Project is currently in the construction phase of the MSA process, since 22 sites are either undergoing remedial action or have completed remedial action. Remedial action consists of constructing a disposal cell of the contaminated materials with a radon barrier cover system. The type of each cover system is based on the EPA standards and the environmental impacts of the alternative actions. At this point in the Project, we do not expect any opportunities for additional employment of emerging technologies. Technologies developed on this Project may be passed on to other clean up projects.

Project Status in FY 2006:

The UMTRA Surface Project is completing final contract close out in FY 1999. All remedial action constructions in FY 1998 except for the Grand Junction disposal cell, Cheney. The continued operation of the Cheney disposal cell will be performed by the Grand Junction Office (GJO-LTSM). The Cheney cell will be left open until 2023 to accept contaminated material from uranium processing sites and associated vicinity properties. The groundwater contamination will be brought into compliance by the GJO under the UMTRA Ground Water Compliance Project. There will be 19 disposal cells licensed by the NRC that are transferred to the GJO under the Long Term Surveillance and Maintenance Program. The final site will be licensed and transferred in FY 1999. There will be over 5000 vicinity properties remediated and certified.

Post-2006 Project Scope:

N/A

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Project Description Narratives

Project End State

The UMTRA Surface Project will be complete in Fiscal Year (FY) 1999. Remedial action was completed in FY 1998 except for the Grand Junction disposal cell, Cheney. The groundwater contamination will be brought into compliance by the UMTRA Ground Water Compliance Project. The UMTRA Surface Project end state will consist of 22 certified clean processing sites by the NRC. The other 2 processing sites were deemed "No Action Sites" with publication of the EA and were removed from the UMTRCA site list. There will be 19 disposal cells licensed by the NRC that are transferred to the GJO under the Long Term Surveillance and Maintenance Program. There will be over 5000 vicinity properties remediated and certified.

Cost Baseline Comments:

The BCWS, BCWP, and ACWP values are from PTS with a special modification to show the total baseline that includes Federal and State Share. The PTS total values for BCWS, BCWP, and ACWP represent the Total baseline value for the Project minus the State Share contributions.

Safety & Health Hazards:

Project is complete there are no further hazards.

Safety & Health Work Performance:

N/A project is complete

PBS Comments:

The completion of the UMTRA Surface Project is a highly visible project to the DOE, associated States, and Indian Nations. The ability of DOE to bring the UMTRA Project to a close by the end of FY98 is strongly correlated to the Nuclear Regulatory Commission's (NRC) ability to finish their review of DOE documents to support licensing of all UMTRA sites, except Grand Junction, by the end of FY98. From monitoring performance over the past year, the UMTRA Project believes there is a significant risk that not all of the UMTRA sites will be licensed by FY98. Consequently, the DOE would not meet the Congressional mandate for the UMTRA Project. Additional work and funding would be required in FY99 to finish the licensing activities.

The current Project schedule baseline forecast shows that at the end of FY 1998 the remedial action construction of all listed processing sites except Belfield and Bowman, ND, (which the State of North Dakota has requested to be removed from the UMTRCA list) will be complete. FY 1998 Project activities will consist of completion of construction activities at the Naturita and Maybell sites, continued Grand Junction vicinity property remediations, and certification and licensing activities for all uncertified processing sites or unlicensed disposal cells. FY 1999 Project activities will consist of certification and licensing activities for all uncertified processing sites or unlicensed disposal cells. Additional close-out dollars are being requested in FY99.1

There is also a risk that not all of the construction activities for the UMTRA Project will be completed by the end of FY98. At the present time, the performance at the Maybell, Colorado UMTRA site is considerably behind schedule due to bad weather causing major rework. If further problems arise, the ability of the work to be accomplished on schedule is at risk. The consequence would be a delay in construction that may push completion beyond FY98 and may require additional funding.

Baseline Validation Narrative:

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Project Description Narratives

A validation occurred in FY1997 (5-9-97) by team lead, Randy Boston. This validation was based on the contractors FY 1999 request. Date of review was 5/16/97 and 5/17/97 at AL. Lead Validator was Randy Boston of AL.

Also, a Budget Validation was conducted May 12-15, 1992 head by Mr. David Sze from the Office of Procurement. From this the Baseline Approved for Use was approved on 10/22/92.

General PBS Information

Project Validated?	Yes	Date Validated:	5/17/1997					
Has Headquarters reviewed and approved project?	No							
Date Project was Added:	12/1/1997							
Baseline Submission Date:	7/1/1999							
FEDPLAN Project?	Yes							
Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
	N	N	N	N	Y	Y	Y	N

Project Identification Information

DOE Project Manager:	George Rael
DOE Project Manager Phone Number:	505-845-4311
DOE Project Manager Fax Number:	505-845-4293
DOE Project Manager e-mail address:	grael@doeal.gov
Is this a High Visibility Project (Y/N):	

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	117,391	0	117,391	70,098	70,098	26,511	26,511	20,782	0	0	0	0	0	0	0

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Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006	
PBS Baseline (constant 1999 dollars)	117,391	0	117,391	70,098	70,098	26,511	26,511	20,782	0	0	0	0	0	0	0	
PBS EM Baseline (current year dollars)	117,391	0	117,391	70,098	70,098	26,511	26,511	20,782	0	0	0	0	0	0	0	
PBS EM Baseline (constant 1999 dollars)	117,391	0	117,391	70,098	70,098	26,511	26,511	20,782	0	0	0	0	0	0	0	
	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070

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2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 9/30/1999

Current Projected End Date of Project: 9/30/1999

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	134,525	Actual 1997 Cost:	70,098	Actual 1998 Cost:	26,511
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	37,916	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			1,024
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	38,940				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):	11,017	Contractor efficiencies in manpower, settlement of claims, risks not realized
Cost Associated with New Scope (+):		
Cost Growth Associated with Scope Previously Reported (+):	-7,141	Difference from last year is shown here for an error in seeding
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	20,782	
Additional Amount to Reconcile (+):	0	Difference should be \$7141 from last year (\$27923) to this year (\$20,782) error in seeding,
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	20,782	

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Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Complete Site Remedial Action At Naturita	NATRA		3/27/1998			10/30/1998				Y	
Complete Vicinity Property RA at Naturita	NATVPRA		7/31/1998			12/3/1998				Y	
ERD Transmit Completion Report to NRC for Naturita	NATCR		9/16/1998		3/29/1999					Y	
Maybell Site Certification, License and Transfer to GJO for LTSM	MAYBELLTRANSFER		9/1/1999							Y	
Project Mission Complete	AL023-99001		9/30/1999								
Submitt Maybell Completion Report Part II to NRC	MAYCRII		1/6/1999		4/28/1999					Y	
Transfer Naturita Site to GJO for LTS Program	NATTRANSFER		1/21/1999		9/13/1999					Y	
Transmit Naturita Final LTSP to NRC	NATLTSP		6/15/1998		2/15/1999					Y	
Initiate documentation in PBS			1/15/1996								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Complete Site Remedial Action At Naturita	NATRA										
Complete Vicinity Property RA at Naturita	NATVPRA										
ERD Transmit Completion Report to NRC for Naturita	NATCR										
Maybell Site Certification, License and Transfer to GJO for LTSM	MAYBELLTRANSFER										
Project Mission Complete	AL023-99001				Y	Y					
Submitt Maybell Completion Report Part II to NRC	MAYCRII										
Transfer Naturita Site to GJO for	NATTRANSFER										

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Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description			
LTS Program														
Transmit Naturita Final LTSP to NRC	NATLTSP													
Initiate documentation in PBS				Y										

Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
RS														
Assess.	NR	0.00	0.00	0.00	22.00		2.00							
RS														
Cleanup	NR	2.00	0.00	2.00	16.00		4.00	2.00						
Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035	Planned 2036 - 2040
RS														
Assess.	NR													
RS														
Cleanup	NR													
Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total				
RS														
Assess.	NR									24.00				

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Category/Subcategory			Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total				
RS																
Cleanup			NR									2.00	24.00			
Release Sites																
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name		Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD	
AMLA	0003		Ambrosia Lake, NM Processing site and Disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles				7/31/1987			7/1/1995	1978	N		Y	
BSBO	0003		Bowman, ND Processing Site	Mill Tailings Piles/Uranium Mill Tailings Piles		1996		6/23/1997				1979	Y		Y	
BSBS	0003		Belfield, ND Processing Site	Mill Tailings Piles/Uranium Mill Tailings Piles		1996		6/23/1997				1979	Y		Y	
CANO	0003		Canonsburg, PA processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles				5/30/1981			12/1/1995	1978	N		Y	
DURA	0003		Durango, CO processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles				4/30/1986			5/1/1991	1978	N		Y	
FACI	0003		Falls City, TX processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles				2/28/1992			7/30/1994	1978	N		Y	
GJUS	0003		Grand Junction, CO Mill Tailings Site	Mill Tailings Piles/Uranium Mill Tailings Piles				9/30/1988			8/30/1994	1978	N		Y	
GRRR	0003		Green River, UT processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles				7/31/1988			12/31/1989	1978	N		Y	

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Release Sites

Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
GUMS	0003		Gunnison, CO processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			3/30/1992			12/31/1995	1978	N		Y
LAKE	0003		Lakeview, OR processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			9/30/1985			10/31/1989	1978	N		Y
LOWM	0003		Lowman, ID processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			6/30/1991			6/30/1992	1978	N		Y
MAMS	0003		Maybell, CO processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			1/30/1995	1998	1998	9/30/1998	1978	N		Y
MEHA	0003		Mexican Hat, UT processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			11/30/1987			2/28/1995	1978	N		Y
MOVA	0003		Monument Valley, AZ processing site	Mill Tailings Piles/Uranium Mill Tailings Piles			5/31/1989			3/30/1994	1978	N		Y
NASI	0003		Naturita, CO processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			1/30/1995	1998	1998	8/31/1998	1978	N		Y
NERS	0003		New Rifle, CO processing site	Mill Tailings Piles/Uranium Mill Tailings Piles			1/30/1991			10/22/1996	1978	N		Y
OLNC	0003		Slick Rock Old North Continent, CO processing site	Mill Tailings Piles/Uranium Mill Tailings Piles			1/30/1995			12/4/1996	1978	N		Y
OLRS	0003		Old Rifle, CO processing site	Mill Tailings Piles/Uranium Mill Tailings Piles			1/30/1991			10/22/1996	1978	N		Y

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Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
RIVR	0003		Riverton, WY processing site	Mill Tailings Piles/Uranium Mill Tailings Piles			7/30/1987			9/30/1990	1978	N		Y
SALC	0003		Salt Lake City, UT processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			10/31/1984			6/30/1989	1978	N		Y
SHIP	0003		Shiprock, NM processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			10/31/1984			11/30/1986	1978	N		Y
SPOK	0003		Spook, WY processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			4/30/1989			9/30/1989	1978	N		Y
TUCI	0003		Tuba City, AZ processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			12/30/1986			5/30/1990	1978	N		Y
UNCC	0003		Slick Rock Union Carbide, CO processing site and disposal cell	Mill Tailings Piles/Uranium Mill Tailings Piles			1/30/1995			12/4/1996	1978	N		Y

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